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5,579,761  
Sec. 3,96

The  
United  
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of  
America



The Commissioner of  
Patents and Trademarks

*Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.*

*Therefore, this*

United States Patent

*Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.*

*If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.*

*If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.*

*Bence Lehman*

Commissioner of Patents and Trademarks

*Marjorie V. Turner*  
Attest



US005579761A

## United States Patent [19]

Yuschak et al.

[11] Patent Number: 5,579,761

[45] Date of Patent: Dec. 3, 1996

## [54] RESPIRATOR HAVING SNAP-FIT FILTER CARTRIDGE

[75] Inventors: Gregory Yuschak, Hudson, Wis.; Peter O. Rekow, Woodbury; Thomas W. Holmquist-Brown, St. Paul, both of Minn.

[73] Assignee: Minnesota Mining and Manufacturing Company, St. Paul, Minn.

[21] Appl. No.: 375,855

[22] Filed: Jan. 20, 1995

[51] Int. Cl.<sup>6</sup> ..... A62B 18/00

[52] U.S. Cl. .... 128/206.17; 128/201.25; 128/208.27; 128/206.12; 128/206.28

[58] Field of Search ..... 128/201.25, 202.27, 128/205.27, 205.28, 205.29, 206.12, 206.17, 206.21, 206.28, 207.12

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Primary Examiner—V. Millin

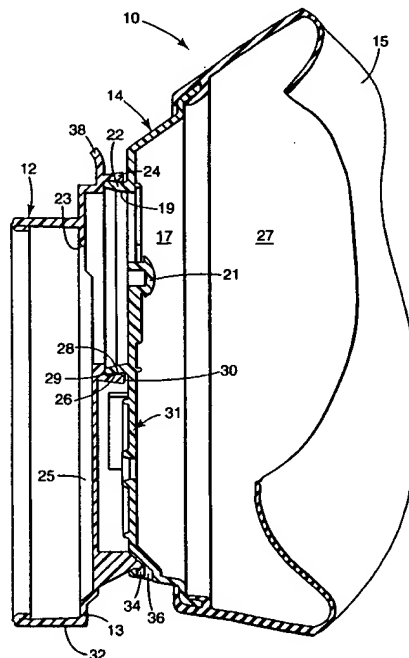
Assistant Examiner—Eric P. Raciti

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## [57] ABSTRACT

A respirator (10) that includes a face piece (14) and a cartridge receiving structure (22) located on the face piece (14). The face piece (14) is sized to fit snugly over the nose and mouth of a person, and the filter cartridge (12) is capable of being manually snapped into engagement with the cartridge receiving structure (22). The snap-fit can be instantaneously obtained without rotational movement of the filter cartridge (12), simply by pressing the filter cartridge (12) against the receiving structure (22).

24 Claims, 3 Drawing Sheets



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